Overview
In this class you will develop a set of important skills, e.g., how to give effective presentations and how to design, set up, execute, analyze, and write up experiments in cognitive psychology. The mental processes that underlie comprehension, memory, emotion and attention will be the main content focus of the class. We will briefly survey recent approaches directed toward understanding these processes, with special emphasis on tasks that are feasible within our laboratory.

Although many researchers have investigated processes underlying comprehension, memory, and attention, these processes are not yet well understood. For example, sometimes comprehension seems to be virtually effortless and automatic, whereas other times comprehension seems to require hard mental work. Why? Emotions associated with to-be-remembered information can influence comprehension and memory. How and why? Finally, working memory seems to have limited capacity, yet people are able to integrate large amounts of information via "chunking processes" in natural language comprehension. How is information integrated into chunks, comprehended, and stored in memory?

In this class you will be able to learn how research in cognitive psychology actually operates. It is both possible and desirable for you to chart new territory in your final class project, addressing research questions about comprehension, memory, emotion and attention that are new and important.

In the first class we will perform a basic demonstration experiment that examines attention and memory for unattended words that are either emotional or unemotional, using yourself and other class members as participants. This demo will illustrate how experiments can be performed to investigate whether certain comprehension and memory processes are automatic, i.e., not under conscious control. In later classes you will read and discuss papers on several subtopics related to comprehension, memory, emotion and attention, and learn how to analyze and write up the results of the demonstration experiment.

Most of the course will be devoted to developing and executing your own experimental project. Students will work on their projects in small teams. For the final written project report, each team will prepare a single Method and Results section, but each student must write their own individual Introduction and Discussion sections. The final report must
follow APA guidelines. Students will give two brief oral presentations: one on the APA guidelines and related information (in weeks 2.5-4.0), the other on their experimental project completed with their team (in the last class).

**Grading:**

"Thinking piece"  5%
Oral presentation 1  8%
Quiz on lectures, presentations, and reading material  9%
Summary of readings  6%
Paper on demonstration experiment  12%
Final project proposal  5%
Draft introduction for Final project paper  4%
Draft Methods section for Final project paper  3%
Oral presentation 2  7%
Final project paper  33%
Class Participation  8%

Class participation will be based on work done in class (including attending class and handing in assignments on time), in groups, and in teams. Major criteria for evaluating the final project proposal and final project paper will be: clarity of writing, implementation of APA guidelines, and the importance or theoretical motivation of the idea based on a review of previous research.

The Psychology department has stipulated the following relative frequencies as guidelines for assignment of final grades.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Frequency</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>20%</td>
<td>15-25</td>
</tr>
<tr>
<td>B</td>
<td>30%</td>
<td>25-35</td>
</tr>
<tr>
<td>C</td>
<td>40%</td>
<td>35-45</td>
</tr>
<tr>
<td>D</td>
<td>6%</td>
<td>5-10</td>
</tr>
<tr>
<td>F</td>
<td>4%</td>
<td>3-5</td>
</tr>
</tbody>
</table>

**How to Use the Computers:** All users of the machines in A258 must 1) Log in by selecting Psych_user from the list. 2) Once you log in, a pop-up window will ask for the password, which is "psych".

**Composition Tutoring Lab:** The Composition Tutoring Lab in 228 Covel Commons is highly recommended for students who wish tutoring or guidance in how to write or compose a paper once they have the basic ideas and information or references. The tutors are advanced undergraduates with experience in composition, some in the composition of papers in psychology. You will be limited to two 1 hour tutoring sessions per week, and must make an advance appointment by calling 206-1491 or by dropping by 228 Covel Commons.

**Students registered with the OSD.** If you are registered with OSD or have a debilitating condition that might interfere with your performance in this class, please contact Dr. MacKay as soon as possible after the beginning of the quarter.
Course Outline

Week 0  9/23 Perform demonstration experiment; course overview

Week 1  9/28 Overview and practicum on literature search skills; Form groups for presentation 1; "Thinking piece" due. Discussion of demo experiment.

9/30 Lecture-discussion related to reading (MacKay, Shafto, Abrams, Taylor, Marion & Dyer, 2004; MacKay, & Ahmetzanov, 2005); Overview on how to come up with an idea to test

Week 2  10/5 Presentation 1 (groups 6 and 1); Lecture-discussion related to reading (MacKay, Hadley, & Schwartz, 2005; Hadley & MacKay, 2006)

10/7 Lecture-discussion related to reading (Abrams, Dyer, & MacKay, 1996; MacKay, James, & Abrams, 2002); Form final project teams. Summary of readings: any 4 assigned reading articles, 1 single spaced page per article maximum. Quiz 1 on lectures, presentations and readings.

Week 3  10/12 Presentation 1 (groups 2-3); Project teams meet and get organized.

10/14 Presentation 1 (groups 4-5); Team discussions with instructors.

Week 4  10/19 Review of experimental design; Paper on demo experiment due; Team discussions with instructors.

10/21 Introduction to microcomputers for experimentation. Project proposal due. Discuss project design with instructors.

Week 5  10/26 Continue projects in class.

10/28 Continue projects in class.

Week 6  11/2 Continue projects.

11/4 Continue projects in class. Drafts of Introduction (individual, with 2 copies) and Methods section due (one per team, with 3 copies).

Week 7  11/9 Continue projects in class.

11/11 Participant testing.

Week 8  11/16 Participant testing.
11/18  Finish participant testing.

Week 9  11/23  *Coded data due for analysis.*

11/25  THANKSGIVING (NO CLASS)

Week 10  11/30  Data analysis and interpretation.

12/2  *Oral presentation 2.*

Week 11  12/7  *Final project papers due by 5pm at latest.*
Required and Supplemental Readings:

**Required Readings**: The required readings listed below are available under the Publications tab on this web site: [www.mackay.bol.ucla.edu](http://www.mackay.bol.ucla.edu)

**Supplementary References** (Not required, not on quiz unless discussed in class):

**For 9/30: Emotion, Memory, and Attention**


**Supplementary references** (Not on quiz, not in [www.mackay.bol.ucla.edu](http://www.mackay.bol.ucla.edu)):


**For 10/5: Perception and Memory under Time Pressure**


**Supplementary references** (Not on quiz, not in [www.mackay.bol.ucla.edu](http://www.mackay.bol.ucla.edu)):


**For 10/7: Language and Memory**


**Supplementary references** (Not on quiz, not in /www.mackay.bol.ucla.edu/):